






**Process for joining parts of ceramic high-temperature superconductive material.****Publication number:** EP0442289**Publication date:** 1991-08-21**Inventor:** PREISLER EBERHARD DR (DE); BOCK JOACHIM DR (DE); HOLZEM JOHANNES (DE); HORST WERNER (DE)**Applicant:** HOECHST AG (DE)**Classification:****- international:** C01B33/00; C01G1/00; C01G29/00; C04B35/45; C04B37/00; H01B12/00; H01B13/00; H01L39/02; H01L39/24; C01B33/00; C01G1/00; C01G29/00; C04B35/01; C04B37/00; H01B12/00; H01B13/00; H01L39/02; H01L39/24; (IPC1-7): B23K1/00; C04B35/00; C04B37/00; H01B12/00; H01L39/12; H01L39/24**- European:** C04B35/45L2; C04B37/00D2; H01L39/02**Application number:** EP19910100727 19910122**Priority number(s):** DE19904004363 19900213**Also published as:** JP4321569 (A)  
 DE4004363 (A1)  
 EP0442289 (B1)**Cited documents:** EP0347770  
 DE3905424**Report a data error here****Abstract of EP0442289**

For joining parts of ceramic high-temperature superconductive material of the composition  $\text{Bi}(2+a-b)(\text{Sr}(1-c)\text{Ca}c)(3-a)\text{Pb}b\text{Cu}(2+d)\text{O}_x$ , a being 0 to 0.3, b being 0 to 0.5, c being 0.1 to 0.9 and d being 0 to 2, and x having a value depending on the oxidation state of the metals present, the end faces of the parts, located at a mutual distance amounting to a gap, are heated by means of a fuel gas/oxygen flame to temperatures from 750 to 875 DEG C. At the same time, a rod of the same material is heated above the distance amounting to a gap until the melt thereof drips between the end faces of the two parts into the gap, completely filling it. At least the joint region between the two parts is then heat-treated for 7 to 100 hours at temperatures between 780 and 850 DEG C.

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